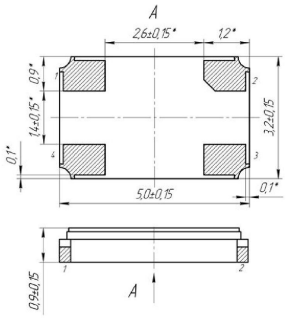
# Quartz Resonator 5×3.2 mm 10-45 MHz (fundamental/AT)

*Electrical Performance*

| Parameter | Units | Value |
|---|---|---|
| Frequency range | MHz | 10 to 45 |
| Frequency tolerance | ppm<br>(code) | ±15.0 (6);<br>±20.0 (7);<br>±30.0 (8);<br>±50.0 (9) |
| Motional resistance (ESR)<br>- 10 to 11 MHz<br>- ov. 11 to 12 MHz<br>- ov. 12 to 20 MHz<br>- ov. 20 to 25 MHz<br>- ov. 25 to 45 MHz | <br>ohm<br>ohm<br>ohm<br>ohm<br>ohm | <br>30 max<br>25 max<br>20 max<br>15 max<br>15 max |
| Unwanted resonance attenuation in the frequency band ±500 kHz to the main one, dB | dB | ≥6 |
| Shunt capacitance:<br>- from 10 to 16 MHz<br>- ov. 16 to 25 MHz<br>- ov. 25 to 35 MHz<br>- ov. 35 to 45 MHz | <br>pF<br>pF<br>pF<br>pF | <br>1.4 ... 2.3<br>1.9 ... 3.2<br>2.4 ... 3.5<br>2.1 ... 2.9 |

M 1:1




Ceramic package with metal lid
Plating: Ni+Au(0,3…1 µm)

*Pinout*

| | |
|---|---|
| 1,3 | Signal |
| 2,4 | Make No Connection |

*Frequency Stability (Over Operating Temperature range)*

| Temperature range, °C (code) | Stability, ppm (code) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ±7.5 (L) | ±10 (M) | ±15 (N) | ±20 (P) | ±25 (R) | ±30 (C) | ±40 (T) | ±50 (U) | ±100 (H) |
| 0 ... 70 (K) | + | + | + | + | + | + | + | + | + |
| -10 ... 60 (A) | | + | + | + | + | + | + | + | + |
| -30 ... 60 (B) | | | + | + | + | + | + | + | + |
| -40 ... 70 (V) | | | | + | + | + | + | + | + |
| -40 ... 85 (C) | | | | | + | + | + | + | + |
| -60 ... 85 (D) | | | | | | + | + | + | + |

*Environmental*

Shock:

test Ea. 200 gn acceleration for 0.1-0.2 ms duration, half sine pulse, 2 shocks in each direction along three mutually perpendicular axes at octave per minute

Vibration:

test Fc. 50Hz 2.0 mm displacement, 1-200 Hz at 20 gn, 8 hours in each of three mutually perpendicular axes at 1 octave per minute

Storage temperature:

-60°C to 85°C

*Long Term Stability*

- ±30 ppm max for 15 years
- ±10 ppm max in 1st year

*Ordering Information*

Quartz Resonator RK513-6VC-45000K-P9

| Product | Frequency tolerance: | Temperature range: | Frequency Stability Over Temperature range: | Nominal frequency: | Load capacitance: |
|---|---|---|---|---|---|
| RK513 | 6 (±15); 7 (±20); 8 (±30); 9 (±50) | K (0…70); A (-10…60); B (-30…60); V (-40…70); C (-40…85); D (-60…85) | L (±7.5); M (±10); N (±15); P (±20); R (±25); C (±30); T (±40); U (±50); H (±100) | K (in kHz) | from 5 to 50 pF |